Morbidity Profile and Quality of Life (QOL) of the Beneficiaries of Asraya Project: A Study from Kerala

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ABSTRACT

Introduction: The State Poverty Eradication Mission of Government of Kerala- ‘Kudumbasree’ launched an innovative programme named Asraya for the destitute individuals. The health conditions and level of living seldom studied among these marginalized individuals. This study aims to assess the morbidity profile and Quality of Life (QOL) of the beneficiaries of the destitute rehabilitation project (Asraya) in Thiruvananthapuram district, Kerala. Methods: This cross-sectional study was conducted among 150 beneficiaries of the destitute rehabilitation project in Thiruvananthapuram district, Kerala, India. Sampling technique used was cluster sampling - Probability Proportionate to Size. A pre-tested semi-structured questionnaire was used to collect the baseline information and WHO QOL BREF was used to assess the quality of life. Data was analyzed using SPSS Version 20. Results: Chronic non-communicable diseases topped the list in their morbidity profile. In general, the Quality of Life of these individuals was poor with a mean score of 30 (22.6). Domain wise analysis produced a score of above 40 in two domains namely physical and environmental. Younger age, access to nutrition, free from diseases and supervision by the authorities were important predictors of QoL. Conclusion: This group of individuals suffered from a multitude of diseases. QoL of the destitute was poor in general, with variations with respect to domains. The quality in the physical domain was relatively better than that in psychological domain.

Key words: Health of the Destitute, Quality of life, Marginalized section, Standard of living, Asraya project, Poverty and health.

INTRODUCTION

The challenge posed by poverty in the overall human development is large. The United Nations has rightly identified this fact and has stated the first Millennium Development Goal as eradication of extreme poverty and hunger. Poverty has been often defined in terms of economic deprivation. The poor often gets excluded from the normal stream of the society.

Destitution is a social pathology and is a condition of extreme poverty in which people lead an unsustainable livelihood. They struggle to meet even the basic necessities of life like food, clothing and shelter. The destitute population forms the lowest socio economic strata in any society and they include beggars, vagrants, abandoned children and elderly, young unmarried mothers, widows and those who live under extreme conditions of economic deprivation. This group is highly vulnerable to the various risks of living and is unable to lead a normal life without external support mechanisms. The proportion of people below the poverty line in India has been reducing since independence. It is reassuring to note that the scenario is not different in both rural and urban areas. However, the destitute population is currently growing in size. In India, the tribal population, coastal population, slum dwellers and people with very low earning comprise the marginalized section. The elderly and women are at more risk even within this group.

The state of Kerala is well known for its remarkable achievement in social development. However the socio-economic deprivation still exists. Various data shows that the proportion of destitute population in Kerala is 1-2 %. The Government of Kerala has pioneered innovative strategies to alleviate poverty of this group.

The State Poverty Eradication Mission of Government of Kerala- ‘Kudumbasree’ has pioneered innovative strategies to alleviate poverty of this group. Asraya is a unique project for the destitute population initiated by the Kudumbasree. Extremely poor and excluded individuals are identified using a 9 point scale developed by the state poverty eradication mission of Govt of Kerala. These include families belonging to socially disadvantaged groups (Scheduled caste/ tribe), with no land, no house, no sanitary latrine, no regularly employed member, no access to safe drinking water, with an illiterate adult member, with a physically or mentally challenged person and those families headed by women. Meeting 7 or more of these crite-
ria would qualify a family to become the beneficiary of Asraya Project. They are provided with support in various domains in order to sustain their living under this project. In the year 2008, Asraya project received the Prime Ministers Best Practice Award in Public Administration. The basic needs of living have been listed out as survival needs in the Asraya project. The services listed under the survival needs are food, medication, minimum financial resources in the form of pension and education. This initiative of the government of Kerala provides a unique opportunity to study the life situations of the destitute in Kerala.

The issues faced by the destitute are many which often go unnoticed and unaddressed. Despite the rehabilitative projects like Asraya, this section of the society is struggling for their existence. The health problems of this vulnerable group remain in the dark. No evidence of quantitative estimations of the level of living of these individuals is available from this part of the world. The current study aims to study the morbidity profile and Quality Of Life (QOL) of the marginalized individuals in Kerala, South India.

MATERIAL AND METHODS

The design of the study is that of a Cross sectional survey conducted in Thiruvananthapuram district, the southern-most district of Kerala during November 2011-April 2012. The study setting has a total population of more than 33 million. There are a total of 78 grama panchayaths (units of local self governments) in the district and Asraya project is being carried out in 34 grama panchayaths during the study period. The destitute families identified as beneficiaries of the Asraya project in various local bodies were the study population. Those who were not willing to participate in the study were excluded.

A total of 150 destitute families were identified from 15 clusters. Sample size was estimated by the formula \( n = \frac{Z^2 \cdot p \cdot q}{d^2} \) \( [a = 1.96, P = 60.8\%] \). Sampling technique used was Cluster sampling technique. Probability Proportionate to Size (PPS). The local body where Asraya project is being implemented was chosen as a cluster. In Thiruvananthapuram district, Asraya is being implemented in 34 panchayaths. The pretesting of the questionnaire and a preliminary study was conducted in Malayankuzhu panchayath where 250 destitute families were brought under the Asraya project. The total number of destitute families included in the sampling frame is 3187. Since the number of clusters was 10, the sampling interval was 3187/10 = 319. The random number selected from the random number table was 316. To this random number the sampling interval was consecutively added to identify the 10 clusters. Table 1 shows the method of selection of 10 local bodies for the study.

Major outcome variables studied was QOL of beneficiaries. QOL was assessed using the WHO QOL BREF questionnaire. It is a tool that could be used internationally and as it was validated in various ethnic groups. The questions assessed the general quality of life as well as the quality of life in physical, psychological, social and environmental domains. The questionnaire contained a set of 26 items for which the responses were measured in Likert scale. All domains were scored separately within the range of 0-100. The scores obtained in various domains have been represented as means with standard deviations. A score of above 60 has been considered as good QOL in each domain.

The questionnaire also asked information on socio-demographic parameters like age, occupation, socioeconomic status and enrolment of the family in Asraya project. The destitute were visited and data was collected by interview technique. Various morbidity suffered by the destitute individuals were recorded from the doctors notes (if available) and as reported by themselves.

Ethical consideration
Confidentiality was maintained throughout the conduct of the study. Permission was obtained from each of the 10 selected local bodies for the conduct of the study. Written informed consent was obtained from the person who was being interviewed in each of the destitute family. The ethical committee of Government Medical College, Thiruvananthapuram gave clearance and approved the study.

Statistical analysis
The data were entered in Microsoft excel and analysed using SPSS software version 16. The categorical variables have been summarized using frequencies and proportions as percentages. Quantitative variables have been summarized as mean and standard deviation. Regression analysis was done to find out the associated factors of quality of life in various domains. All hypotheses were tested at a significance level of 95% and power of 80%.

RESULT

The mean age of the study population was 56.02 (14.47) years. More than half of them (78, 52%) belonged to the age group of 41-60 years. Elderly (above 60 years) constituted 32.7% (n=49) of the population. More than three fourth (76.7%) of the study population were comprised by females. The youngest was a 15 year old girl and the eldest was a 90 year old widow. The age distribution of males and females were comparable. The mean age of the male participants was 56.1 (16.5) years and that of females was 55.9 (13.7) years. Majority (97, 64.7%) of the study participants were unemployed. Among the employed individuals (n=53), almost all (52, 98.1%) were involved in unskilled labour. A good proportion (23, 15.3%) of the study participants was unmarried. More than half of them (85, 56.7%) were either separated from their spouses or widowed. The mean self declared family income per month was Rs 428.17 (475.6). The baseline information about the study population is given in Table 1.

It was found that the destitute population suffered from a battery of chronic medical illnesses. Among the 150 beneficiaries, 136 (90.7%) of them were found to be suffering from one or chronic ailments. The morbidity profile of these individuals is given in Table 2. More than half of the diseased individuals (81, 59.6%) were found to suffer from more than one chronic diseases. The facility adopted by 120 (88.2%) diseased individuals for their treatment is the nearest Government facility, while 16 (11.8%) go to private hospitals for availing treatment services. A good proportion of the chronically ill individuals (129, 94.8%) had to spend out of their pockets for health care services like diagnostic investigations, buying medicines and hospitalization. Maximum number of individuals (70, 51.5%) reported the out of pocket spending for buying medicines. Thirty-nine (28.7%) of the people had to spend money on investigations and 20 (14.7%) for hospitalization.

QOL assessment was done in 4 major domains physical, psychological, social and environmental. Maximum mean score was for physical domain and minimum for psychological domain. The means and medians of the domain specific as well as overall quality of life scores are shown in Table 3. In general the quality of life of these destitute individuals was poor, with a mean (SD) overall quality of life score of only 30 (22.6) out of 100.

Analysis of the factors associated with good quality of life in the physical domain revealed that those employed, without any chronic illnesses, age less than 60 years and earning monthly income of more than Rs 500 were all significantly enjoying better quality of life. Psychological domain had the least mean (SD) score of 36.67 (16.1). Better QOL in the psychological domain was seen for younger individuals, males, those who had income above Rs 500 and those families visted by Asraya project super-
visors. Social domain of QOL tries to capture the personal relationships and the social support enjoyed by the beneficiaries. The mean (SD) score of QOL in this domain was 38.18 (18.7). In general younger individuals (age less than 40 years), males, married individuals who are currently living with their spouses were found to have better scores. The questions in the environmental domain mainly tried to capture the condition existing in the home environment, physical environment like pollution and their financial stability. The mean (SD) score of the study participants for their QOL in this domain was 41.45 (13.2).

Binary logistic regression was done to find out the determinants of QOL in various domains. The results of regression analysis are given in Table 5. Visiting the beneficiaries of Asraya project by the supervisors was seen to play an important role in determining the QOL of the beneficiaries especially in the psychological and environmental domains. Social quality of life was seen to be better among those who lived with their spouses.

**DISCUSSION**

Around one third of the destitute population in the current study belonged to the age group of above 60 years. Analysis of the census data over the past decades reveals an increase in the proportion of the elderly destitute. According to 2001 census data, 31.4% of the destitute population was above the age of 60 years. It appears that extreme poverty and destitution in Kerala also is more associated to the aging population. This has wide implication in the current scenario of the state with elderly (above 60 years) constituting 13% of the total population. The physical and social disadvantages faced by the elderly poor puts them in...
Table 4: Overall Quality of Life and Domain specific scores of the beneficiaries

<table>
<thead>
<tr>
<th>Domain</th>
<th>Mean</th>
<th>SD</th>
<th>Median</th>
<th>IQR</th>
<th>Min-Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>QOL</td>
<td>30</td>
<td>22.6</td>
<td>25</td>
<td>12.5-50</td>
<td>0-88</td>
</tr>
<tr>
<td>Physical</td>
<td>46.45</td>
<td>21.4</td>
<td>46.3</td>
<td>32.1-66</td>
<td>0-93</td>
</tr>
<tr>
<td>Psychological</td>
<td>36.67</td>
<td>16.1</td>
<td>37.5</td>
<td>25-45.8</td>
<td>0-71</td>
</tr>
<tr>
<td>Social</td>
<td>38.18</td>
<td>18.7</td>
<td>33.3</td>
<td>25-41.7</td>
<td>0-100</td>
</tr>
<tr>
<td>Environmental</td>
<td>41.45</td>
<td>13.2</td>
<td>40.6</td>
<td>34.4-49.2</td>
<td>0-88</td>
</tr>
</tbody>
</table>

Table 5: Determinants of poor quality of life in various domains - results of binary logistic regression

<table>
<thead>
<tr>
<th>Domain</th>
<th>Factors</th>
<th>Adjusted OR (95% CI)</th>
<th>P value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical</td>
<td>Age above 60 years</td>
<td>3.49 (1.57-7.73)</td>
<td>0.002</td>
</tr>
<tr>
<td></td>
<td>Monthly income less than Rs 500</td>
<td>2.62 (1.16-5.88)</td>
<td>0.019</td>
</tr>
<tr>
<td></td>
<td>Suffering from chronic diseases</td>
<td>3.56 (1.06-11.98)</td>
<td>0.04</td>
</tr>
<tr>
<td></td>
<td>No visit by Asraya supervisors</td>
<td>5.21 (1.90-14.27)</td>
<td>0.001</td>
</tr>
<tr>
<td>Psychological</td>
<td>Living away from spouse</td>
<td>7.96 (3.15-20.11)</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Social</td>
<td>No visit by Asraya authorities</td>
<td>4.85 (1.76-13.35)</td>
<td>0.002</td>
</tr>
<tr>
<td>Environmental</td>
<td>Age less than 80 years</td>
<td>7.1 (1.61-30.05)</td>
<td>0.008</td>
</tr>
</tbody>
</table>

However the scores were better than people with severe medical illnesses (cancer patients and HIV patients), to whom it varied from 10 to 20 depending upon the domains.25, 26 But the study population is enjoying a poorer QOL as compared to people suffering from other debilitating and stigmatizing diseases27-28 and not even comparable to the patients seeking general outpatient care from a primary level hospital.27 People with psychiatric diseases were also reported to have better QOL compared to the destitutes.27 A study conducted among disabled individuals also documented the lack of QOL in psychological domain in the study subjects as compared to other domains of WHO QOL BREF.27 It is to be noted that age, monthly income, diseases, visit by the authorities of Asraya and living with spouse were important predictors of QOL in various domains. It indicates the importance of economical, nutritional, social and psychological support mechanisms. Administrators should keep these areas in their mind while framing policies for marginalized people of the society.

There are limited scientific studies on destitution in India and the life of these people is less observed, less reported and less addressed. Perhaps this is the first report from Kerala on the condition of extremely poor and socially unprivileged people, the destitute. Current study is based on primary data and we used internationally validated tool for data collection. The questionnaires were administered in a small group of study subjects before conducting the study. The study may not have captured those individuals who are not the beneficiaries of Asraya project. There were limitations in capturing the exact deprivation experienced by these individuals as the study tool used was a closed ended questionnaire (WHO QOL BREF).

CONCLUSION

This study brings into light the health related issues and quality of life of a marginalized section of the population. The destitute individuals lead highly morbid lives with an enormous burden of non communicable diseases. They have a very high prevalence of neurological disorders, mental ailments and physical handicap as compared to the general population. The Quality of Life of these destitute families is generally poor. The mean (SD) score for general QOL is as low as 30 (22.6). The mean (SD) scores for QOL in the physical, psychological, social and environmental domains were 46.4 (21.4), 36.6 (16.1), 38.1 (18.7) and 41.4 (13.2) respectively. Younger individuals were found to enjoy better QOL. Receiving a regular monthly income, living with spouses and regular visits by Asraya supervisors were the determinants of good QOL.

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CONFLICT OF INTEREST

NIL

ABBREVIATION USED

QOL: Quality of Life.

REFERENCES

146

Nair et al.: Diseases and Quality of Life of the Destitute


